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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,700	12/22/2000	Richard Schubert	A0312/7388/MXS	4554
7590	10/21/2004		EXAMINER	
<b>Randy J. Pritzker</b> Wolf, Greenfield & Sacks, P.C. 600 Atlantic Avenue Boston, MA 02210				TRAN, KHAI
		ART UNIT	PAPER NUMBER	2637

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/748,700	SCHUBERT ET AL.
	Examiner Khai Tran	Art Unit 2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 09 August 2004.

2a) This action is FINAL.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-3 and 29-39 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1 and 31 is/are rejected.

7) Claim(s) 2,3,29,30 and 32-39 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

## DETAILED ACTION

1. The amendment A filed 8/09/04 has been entered. Claims 4-28 have been cancelled. Claims 1-3, 29-39 are pending in this Office action.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Adams et al (U.S. Pat. 5,786,778).

Regarding claim 1, Adams et al disclose a communication system as shown in Figure 13, comprising: an all-digital loop circuit (a PLL includes a noise-shape DCO 72, a loop filter 130, a phase detector 76, a divide-by-128 element 80); for outputting a sample rate control signal (a sample rate control signal output from the noise-shape DCO 72) to be function of a frequency of a reference signal received by the communication circuit; a variable-ratio sample rate filter (a decimation filter 132) that changes a sample rate of an output digital data stream relative to a sample rate of an input digital stream in response to the sample rate control signal received from the all-digital loop circuit (col. 12, lines 3-30 i.e. the decimation filter 132 operates at the

variable rate of the noise shaped clock signal according to the sample rate control signal received from the noise-shaped DCO 72).

Regarding claim 31, Adams et al disclose the variable-ratio sample rate filter comprising: an interpolation filter (84).

#### ***Allowable Subject Matter***

4. Claims 2-3, 29-30 and 32-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: Adams et al fail to disclose or suggest that the communication system comprising: an analog-to-digital converter, coupled to the variable sample rate filter, and fixed clock coupled to the analog-to-digital converter to substantially fix a sampling rate of the analog-to-digital converter.

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-3 (original claims 4-28 have been cancelled), and newly added claims 29-39 have been considered but are moot in view of the new ground(s) of rejection.

The new ground of rejection has been made and illustrated as above (see paragraph 2.

#### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



KHAI TRAN  
Primary Examiner  
Art Unit 2637

*KT*  
**October 20, 2004**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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*KT*  
**October 20, 2004**